AUDIBLE/VISUAL NON-CONTACT VOLTAGE TESTER

USER'S MANUAL

VS3000A

Please read this manual carefully and thoroughly before using this product.

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INTRODUCTION

Thank you for purchasing General Tools & Instruments' (General's) VS3000A Audible/Visual Non-contact Voltage Detector. Please read this manual carefully and thoroughly before using the product.

The VS3000A provides a safe (non-contact) way to check whether a line, cable or AC outlet is "hot" (energized). It does so by sensing from a short distance the electromagnetic field created by AC voltage.

Even unloaded AC circuits generate electromagnetic fields. Although these fields are extremely weak, their constantly changing nature means that they generate some current. A sensitive non-contact voltage detector can sense this current via induction, in much the same way that a sensitive radio receiver can sense weak radio waves.

Non-contact voltage detectors, including the VS3000A, cannot detect DC voltages, such as those present in automotive electrical systems. The VS3000A also cannot detect AC voltages through a wall or metal conduit.

KEY FEATURES

- Dual indications (beeper sounds and LED flashes) when voltage is detected
- Safe for use on CAT III 1000V equipment. (Equipment rated CAT III 1000V is designed to protect against transients in equipment in fixed installations, such as distribution panels, feeders and short branch circuits for lighting systems in large buildings.)
- ETL certified
- Automatic battery check function
- Powered by (2) "AAA" batteries (included)

SAFETY INSTRUCTIONS

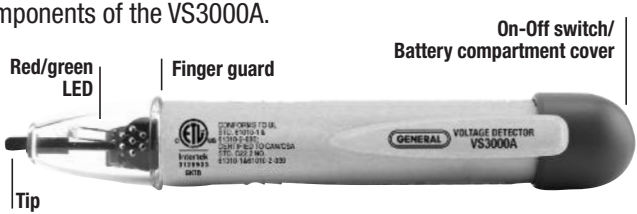
- Read and understand all of the instructions and safety information in this manual before operating the tester.
- Failure to observe these precautions can result in injury and can damage the instrument.
- Using this unit near equipment that generates electromagnetic interference can result in unstable or inaccurate readings.
- Although the unit automatically checks the charge of its batteries each time it is powered on, it is good practice to confirm that the VS3000A is operating normally before you use it to test for the presence of AC voltage. It is important that you do this *each time* you use the instrument.

  The usual way to check the unit's operation is to insert the blade tip into both slots of an outlet known to be energized; if the beeper does not sound and the LED does not flash for either slot, replace both "AAA" batteries before proceeding.

- The VS3000A indicates the presence of AC voltage with an amplitude between 70V and 1000V. Accordingly, *do not* assume that the absence of a positive indication means that the circuit under test is de-energized (not “hot”). Although they can cause shock and/or serious personal injury, voltages below 70V may not be detected by the VS3000A. Whenever you have reason to believe that a line or outlet is “hot”, confirm your suspicion by measuring the voltage of the line or outlet with a multimeter or clamp meter.
- To avoid electric shock, do not operate the unit without the switch/battery compartment cover in place.
- Physically separate the multiple lines of 2-phase and 3-phase circuits before testing them.
- Do not use the VS3000A if it appears to be damaged or malfunctioning.
- Do not expose the tester to temperatures above 122°F, relative humidity greater than 85%, or voltages higher than 1000V.
- Do not use the VS3000A to test for the presence of DC voltage.
- Do not use the unit to test for the presence of AC voltage on a shielded conductor, behind a wall or conduit, or under soil.
- Keep your hand behind the finger guard when performing a test. Never touch any conductor with your hand or skin until you have confirmed that it is not “hot”. To repeat: whenever you have reason to believe that a line or outlet is “hot”, measure its voltage with a multimeter or clamp meter.
- If the equipment is used in a manner not specified by the manufacturer, the protection provided by the product may be impaired.

PRODUCT OVERVIEW

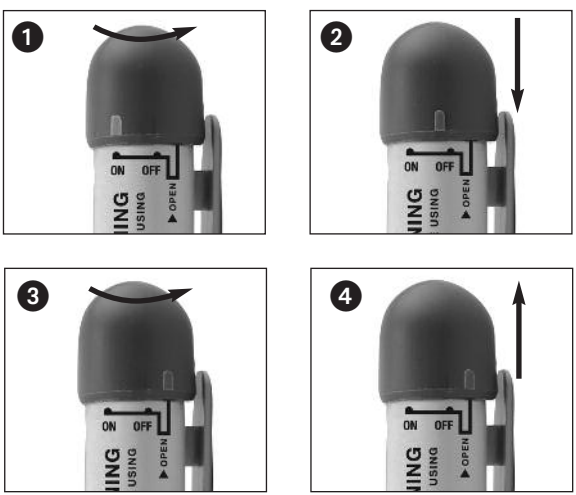
The image below shows the controls, indicators and key components of the VS3000A.



SETUP INSTRUCTIONS

INSTALL BATTERIES

The four images below illustrate how to open the battery compartment of the VS3000A.



Opening the battery compartment with the switch/cover in the **ON** position (as indicated by the raised position mark) is a three-step procedure:

1. Turn the switch/cover counterclockwise one notch to the **OFF** position (figure ❷ above).
2. While pressing down on the switch/cover, turn it counterclockwise one more notch to the **OPEN** position (figure ❸ above).
3. When the switch/cover is in the **OPEN** position, it is loose enough to be pulled off (figure ❹ above). Remove the switch/cover and set it aside.

Slide the two "AAA" batteries into the battery well cathode (- side) first. The correct battery orientation is indicated by a pair of raised icons on the opposite side of the unit (as shown below).

To close the battery compartment, replace the switch/cover and rotate it clockwise to the **OFF** position.

OPERATING INSTRUCTIONS

To power on the VS3000A, rotate the On-Off switch/battery compartment cover to the **ON** position. The unit will respond by flashing the LED in the tip red twice and sounding two beeps.

After the LED flashes red twice, it will switch to flashing green twice every two seconds. The LED will continue to flash green at this rate until you turn the VS3000A off, to remind you that the unit remains on.

After you confirm that the unit is operating normally and have finished using it to check whether an outlet and/or wire or cable is energized (see below), remember to power off the VS3000A by rotating the switch/cover to the **OFF** position. This will extend the life of the batteries powering the unit.

To confirm that the VS3000A is operating normally, with the unit powered on insert its blade tip into both slots of an AC outlet known to be energized (left figure below). If the batteries are charged, the beeper will sound and the LED will flash red when the tip is in one of the slots.

If the beeper sounds and the LED flashes red when the tip is inserted in the *smaller* slot, this also confirms that the energized outlet is properly wired (the smaller slot is "hot" and the larger slot is neutral).

To determine whether an unknown AC outlet is energized, insert the blade tip of the VS3000A into both slots of the outlet, one at a time.

1. If the beeper sounds and the LED flashes red when the tip is in the *smaller* slot, the outlet is energized and wired correctly.
2. If the beeper sounds and the LED flashes red when the tip is in the *larger* slot, the outlet is energized but wired in reverse.
3. If the beeper does not sound and the LED does not flash when the tip is in either slot, the circuit is de-energized.

To detect the presence of AC voltage on a line or cable, turn on the VS3000A and position its tip within 1/2 inch of the line or cable. If the beeper sounds and the LED flashes red, the line or cable is “hot” (energized). If you do not get both positive indications, touch the tip to the line or cable (right figure above). If the beeper sounds and the LED flashes red, the line or cable is “hot” (energized). If you do not get either positive indication, the line or cable is de-energized.

SPECIFICATIONS

Voltage Detection Range	70 to 1000VAC @ 50-500Hz
Regulatory Compliance	ETL certified Conforms to UL 61010-1 and 61010-2-030 Certified to CAN/CSA C22.2 Nos. 61010-1 and 61010-2-030
Operating Temperature	32° to 104°F (0° to 40°C) @ <85% RH
Operating Altitude	6562 ft. (2000m), maximum
Storage Temperature	14° to 122°F (-10° to 50°C) @ <85%RH
Dimensions	6.0 x 1.1 x 0.9 in. (152 x 27 x 23.5mm)
Weight (with batteries)	1.4 oz. (39g)
Power Source	2 “AAA” batteries (included)

WARRANTY INFORMATION

General Tools & Instruments' (General's) VS3000A Audible/Visual Non-contact Voltage Tester is warranted to the original purchaser to be free from defects in material and workmanship for a period of one year. Subject to certain restrictions, General will repair or replace this instrument if, after examination, the company determines it to be defective in material or workmanship.

This warranty does not apply to damages that General determines to be from an attempted repair by non-authorized personnel or misuse, alterations, normal wear and tear, or accidental damage. The defective unit must be returned to General Tools & Instruments or to a General-authorized service center, freight prepaid and insured.

Acceptance of the exclusive repair and replacement remedies described herein is a condition of the contract for purchase of this product. In no event shall General be liable for any incidental, special, consequential or punitive damages, or for any cost, attorneys' fees, expenses, or losses alleged to be a consequence of any damage due to failure of, or defect in any product including, but not limited to, any claims for loss of profits.

RETURN FOR REPAIR POLICY

Every effort has been made to provide you with a reliable product of superior quality. However, in the event your instrument requires repair, please contact our Customer Service to obtain an RGA (Return Goods Authorization) number before forwarding the unit via prepaid freight to the attention of our Service Center at this address:

General Tools & Instruments
80 White Street
New York, NY 10013
212-431-6100

Remember to include a copy of your proof of purchase, your return address, and your phone number and/or e-mail address.

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MAN# VS3000A
4/2/13